



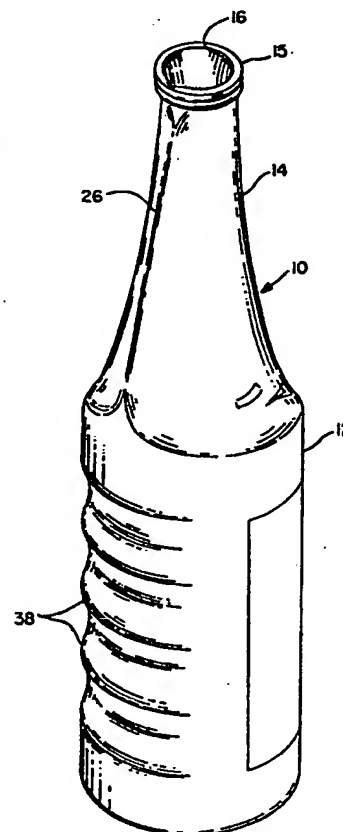
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/US92/00390</p> <p>(22) International Filing Date: 16 January 1992 (16.01.92)</p> <p>(30) Priority data: 642,428 17 January 1991 (17.01.91) US 791,964 13 November 1991 (13.11.91) US</p> <p>(71) Applicant: GET A GRIPP II, INC. [US/US]; P.O. Box 13001, Hauppauge, NY 11788 (US).</p> <p>(72) Inventor: BROWN, Harvey, J. ; Get A Gripp II, Inc., P.O. Box 13001, Hauppauge, NY 11788 (US).</p> <p>(74) Agent: MAGIDOFF, Barry, G.; 420 Lexington Avenue, New York, NY 10170 (US).</p>	<p>(81) Designated States: AT, AT (European patent), AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CA, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CI (OAPI patent), CM (OAPI patent), CS, DE, DE (Utility model), DE (European patent), DK, DK (European patent), ES, ES (European patent), FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), GN (OAPI patent), GR (European patent), HU, IT (European patent), JP, KP, KR, LK, LU, LU (European patent), MC (European patent), MG, ML (OAPI patent), MN, MR (OAPI patent), MW, NL, NL (European patent), NO, PL, RO, RU, SD, SE, SE (European patent), SN (OAPI patent), TD (OAPI patent), TG (OAPI patent).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>	

(54) Title: BEVERAGE BOTTLE WITH GRIP

(57) Abstract

A bottle containing a beverage comprising a main body (12) with a neck (14) extending therefrom terminating in an opening with a releasable cap thereon. The opening is semi-circular with an inverted V-shaped portion to make it convenient to drink the beverage directly from the bottle. The base (32) of the bottle has a cap opener built in consisting of a well (34) designed to retain the cap taken from another identical bottle. The outer surface of the bottle is ribbed for ease of holding the bottle.



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BACKGROUND OF THE INVENTION

The present invention relates to a beverage bottle and more particularly to a beverage bottle specially constructed for drinking directly out of by the consumer.

The typical beverage bottle consists of a hollow vessel with a narrow mouth for holding and carrying liquids. While not particularly designed to facilitate the consumer to drink the contents directly from the bottle, it has become increasingly popular in recent years for consumers to walk around holding the bottles and sipping the contents. Young people today are very active and very often drink their beverages while on the go, or in conversation standing up, or even while engaged in other physical activities. Since the contents of a bottle having a narrow mouth are less likely to splash out, it can be readily seen why this mode of drinking beverages is becoming more favored than for example drinking out of a cup or even a can.

One of the drawbacks associated with the drinking of the contents directly from such a bottle is the gulping of air which must take place to replace with air the liquid removed during normal efforts at drinking or, in the alternative, sipping the contents.

A number of containers or bottles have been patented which have some superficial resemblance to this invention.

USP Des. 92,953 shows a bottle with a triangular opening. Since this is a design patent there is no other information about the constructional details or their purpose.

USP Des. Nos. 269,500, 272,521, 277,682, 279,167, and 308,335 show a variety of other bottle designs unrelated to the present invention.

USP 1,773,291 discloses a bottle with an angled opening.

USP 1,814,659 illustrates a bottle with a pouring nozzle which has a triangular spout.

USP 2,035,877 shows a container with a triangular pouring spout to limit dripping.

USP 2,540,931 discloses pouring nozzles in a variety of shapes.

USP 2,745,,301 shows a bottle with a can opener mounted in its base.

USP 2,992,574 illustrates a beverage container with a bottle opener mounted in the base.

USP 3,236,126 discloses a beverage container with a bottle opener mounted in its base.

USP 3,391,838 shows a container with an anti drip lip and extended threaded section.

USP 3,536,223 illustrates a molded plastic container with diverging side walls.

USP 3,871,541 discloses a ribbed bottom structure for a container.

USP 4,749,092 describes a bottle with flat outer wall surfaces.

USP 4,798,300 shows a bottle with an integral cap-removing recess mounted in the bottom.

USP 4,804,093 illustrates a plastic bottle with hand grip indentations.

USP 4,838,464 discloses a plastic bottle which is vented to improve the pouring characteristics of the bottle.

USP 4,890,752 shows a bottle which is rectangular in cross section with recesses to provide strength.

None of the preceding patents suggests or teaches the present invention.

SUMMARY OF THE INVENTION

In the present invention the drawbacks presently associated with drinking from a narrow necked bottle are avoided or lessened by providing an orifice construction which makes it possible to drink in a more normal manner from such a bottle without the necessity of pausing to permit the bottle to swallow or gulp replacement air.

A preferred embodiment of this invention comprises a narrow necked bottle with a circular outer circumference at the open end to accommodate a conventional crown or cap but having an opening which is shaped to form a V-shaped configuration extending a distance outwardly sufficient to

permit normal drinking while air may enter the bottle to replace liquid being removed.

The preferred embodiment also includes features making it easier to hold the bottle and means to remove and retain the cap from another bottle.

It is thus a principal object of this invention to provide a bottle with improved drinking characteristics.

Other objects and advantages of this invention will become obvious from the following description of preferred embodiments of this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a bottle incorporating the principles of this invention.

Fig. 2 is a top view of the bottle shown in Fig. 1.

Fig. 3 is a perspective of a person drinking from the bottle shown in Fig. 1.

Fig. 4 is a perspective view of the bottle shown in Fig. 1 taken from the bottom.

Fig. 5a is a view taken along 5a-5a of Fig. 4, showing a second bottle about to be opened.

Fig. 5b is a view similar to that of Fig. 5a with the second bottle in the process of being opened.

Fig. 5c is a view similar to that of Fig. 5a with the cap or crown removed from the second bottle.

Fig. 6 is a top view of an alternative opening construction.

Fig. 7 is a partial cross-section of the main body of the bottle, showing the hand grip portion taken along lines 7-7 of Fig. 4.

Fig. 8 is a cross-section view similar to that of Fig. 7, of an alternative embodiment.

Fig. 9 is a perspective view similar to Fig. 1, of an alternative embodiment of the bottle, including a thumb depression.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Figs. 1 and 2, bottle 10 consists of a main body 12 with a section 14 which narrows down to a lip 15 which forms bottle opening 16. The outer circumference of lip 15 is circular to take a conventional bottle cap or crown as is understood in the art.

Bottle 10 is intended to contain carbonated or non-carbonated beverages which are to be drunk directly from the bottle.

While lip 15 on the outside is circular for the reason mentioned above, a principal feature of bottle 10 is

portion of the outer surface to correspond to the fingers of the person holding the bottle lined up with rib 26. The purpose of ribs 38 is to make it easier to grasp bottle 10, holding it more lightly than heretofore possible, without the bottle slipping through the hands.

Fig. 7 shows the bottle of Fig. 4, in cross-section; Fig. 8 shows an alternate embodiment where the ribbed portion extends substantially around the entire circumference of the bottle. As is further shown by both Figs. 7 and 8, the bottom and top cylindrical portions 136, 138 of the main body of the bottle, preferably have a slightly larger outer diameter than do the intermediate convex ribs 38. It is further preferred that the depth of the concave portions 131, 133, 135, 137, between the convex ribs 38, decreases from top to bottom, i.e. from the deepest concavity 137, adjacent the top cylindrical portion 138, to the shallowest concavity 131.

In yet another preferred embodiment, an optional thumb depression is formed, as shown, for example, on Fig. 9, at a location on the bottle circumference opposite and most preferably, above the location of the ribs 38.

The presence of the ribs 38 on a bottle, continuously curved in cross section, so that a user can drink directly from the bottle, is an important feature because it increases the convenience of drinking directly from the bottle. Varying the depth of the depressions, and providing a thumb depression, further enhances the advantages of this invention, as does the forming of knurls 143, or other friction increasing surface effects, along the concave surfaces. For example, a person sipping the beverage over a period of time is more likely to tire before the bottle is empty if he or she has to grasp it tightly to prevent slipping of the bottle. The fact that only a light grip is required in the presence of the ribs should make it more attractive to hold the bottle. Sanitary considerations also become a factor because if glasses are employed, there is always a question in a crowd whether the glass has been washed, and if so, whether properly washed. The continuously curved cross section in

contrast to rectangular or other shapes is easier and less awkward to hold than other shapes.

While the design of bottle opening 16 as just described has been found to be satisfactory, under some circumstances it might be desirable to isolate the passageway which carries air into the bottle as the user drinks from it. Such a construction is shown in Fig. 6 where bottle 60 identical to bottle 10 is shown except that opening 62 with a spine 64 is provided with a passageway 66 formed as illustrated. Passageway 66 would extend back from opening 62 only a short distance, for example, about an inch, and no longer than the neck of bottle 60. In this configuration the outside shape of lip 68 is shown as being oval. Lip 68 can also be circular as is lip 15 in the embodiment of Figs. 1-5.

The bottle design which has been described makes it more convenient and easier to drink a beverage from the type of bottle herein described than heretofore has been possible.

While only certain preferred embodiments of this invention have been described it is understood that many variations are possible without departing from the principles of this invention as described in the claims which follow.

What is claimed is:

1. A hand held bottle containing a beverage suitable for drinking directly therefrom, said bottle comprising a main body closed at one end by a base and having a neck extending from the other end, said neck narrowing down and terminating in an open end means for being closed by a releasable cap, the improvement comprising said open end means including a lip circular on the outside and forming an opening with an inverted v-shaped portion thereof and a protruding rib extending the length of said neck from said lip aligned with said inverted v-shaped portion at said opening to said main body for indicating by feel the orientation of said bottle.

2. The bottle of claim 1 in which said base means is concave in shape and has mounted in the outside surface means for removing and retaining a releasable cap from another bottle.

3. The bottle of claim 2 in which said removing means comprises a well shaped to receive said releasable cap and sized slightly under the size of said cap for retaining said cap.

4. The bottle of claim 3 wherein the concave shape in said base means is sufficiently deep so that said bottle will stand upright even when a cap is entrapped within said well.

5. The bottle of claim 1 having ribs on the outside of said main body arranged to correspond to the fingers of the person holding said bottle to prevent said bottle from slipping through the fingers of said person.

6. The bottle of claim 1 wherein said opening comprises a semi-circle with said V-shaped opening being formed by a pair of side walls extending from said semi-circle meeting at a point to form a Vee with the point thereof directed outwardly.

7. A hand held bottle containing a beverage suitable for drinking directly therefrom, said bottle comprising a main body closed at one end by a base and having a neck extending from the other end, said neck narrowing down and terminating in an open end means for being closed by a

the shape of opening 16 which as more particularly shown in Fig. 2 is semi-circular and with a pair of side walls 18 and 22 forming a triangular opening, that is, an inverted Vee 24 with the point directed outwardly as illustrated. A protruding rib 26 as seen in both Figs. 1 and 2 is formed extending between main body 12 to lip 15 aligned with Vee 24 so that the person holding the bottle 10 will always know the orientation of triangular opening 24 without looking at the bottle. Even in the dark or without looking at bottle 10 the user drinking from bottle 10 will be able to orient the bottle properly initially in the manner which is described below. Referring to Fig. 3, it will be seen that bottle 10 is held while drinking such that rib 26 and hence triangular opening 24 extends above the lips of the user toward the nostrils of the person drinking the beverage contained therein. As shown by the arrow illustrated, air is able to enter bottle 10 through the passageway formed by walls 18 and 22 to replace the liquid, being removed while the person is drinking.

The person thereby is able to drink at a rate which is greater than is possible by sipping alone, while at the same time avoiding gulping of air within the bottle.

Another important feature of bottle 10 is located in its base as illustrated in Figs. 4 and 5a - 5c.

Mounted within concave shaped base 32 of bottle 10 is a well 34 circular in shape to receive cap or crown 36 of bottle 10' which is identical to bottle 10. The terms cap and crown are used interchangeably herein. The size of well 34 is such that cap or crown 36 is squeezed slightly as shown in Figs. 5a and 5b, that is well 34 is slightly undersized for cap 36 so that when bottle 10' is removed in the manner shown in Fig. 5c cap 36 will be retained within well 34. Thus when bottle 10 is returned for recycling, cap 36 will be returned also. The concave shape of base 32 permits bottle 10 to stand upright even with cap or crown 34 protruding well 34 as seen in Fig. 5c.

Another feature of bottle 10, as seen in Fig. 1, is the ribbed structure consisting of parallel, spaced ribs 38 which run along the circumference of the bottle for at least a

releasable cap, the improvement comprising transversely extending ribs formed on the outside of said main body arranged to correspond to the fingers of the person drinking from said bottle to prevent said bottle from slipping through the fingers of said person.

8. The bottle of claim 7 in which the cross section of said main body is continuously curved.

9. The bottle of claim 7 in which said main body is substantially circular in cross section.

10. The bottle of claim 8 wherein said ribs extend only a portion of the way around the circumference of said main body.

11. A hand held bottle containing a beverage suitable for drinking directly therefrom, said bottle comprising a main body closed at one end by a base and having a neck extending from the second end, said neck narrowing down and terminating in an open end means for being closed by a releasable cap, the improvement comprising transversely extending alternately concave and convex ribs formed on the outside of said main body intermediate two substantially cylindrical portions adjacent the first and second ends of the main body, respectively; the most radially outward portion of the convex ribs being depressed below the outer circumferences of the cylindrical portions, the ribs being arranged to correspond to the fingers of a person drinking from said bottle, to prevent said bottle from slipping through the fingers of said person.

12. The bottle of claim 11 in which the cross section of said main body is continuously curved.

13. The bottle of claim 12 in which said main body is substantially circular in cross section.

14. The bottle of claim 11 wherein said ribs extend only a portion of the way around the circumference of said main body.

15. The bottle of claim 11 wherein said ribs extend substantially 360° around the circumference of said main body.

16. The bottle of claim 11 wherein the radial distance between an adjacent peak and trough of the ribs

decreases from the first cylindrical portion towards the second cylindrical portion.

17. The bottle of claim 11 wherein the outer surface of the concave trough is irregular, to increase friction.

18. A hand held bottle containing a beverage suitable for drinking directly therefrom, said bottle comprising a main body closed at one end by a base and having a neck extending from the other end, said neck narrowing down and terminating in an open end means for being closed by a releasable cap, the improvement comprising said open end means including a lip on which said cap is mounted and forming an opening with a passageway to permit drinking the liquid contents of said bottle directly through said open end means while at the same time permitting air to pass through said passageway to replace the liquid contents being removed.

19. The bottle of claim 18 in which said base means is concave in shape and has mounted in the outside surface means for removing and retaining a releasable cap from another bottle.

20. The bottle of claim 18 in which said removing means comprises a well shaped to receive said releasable cap and sized slightly under the size of said cap for retaining said cap.

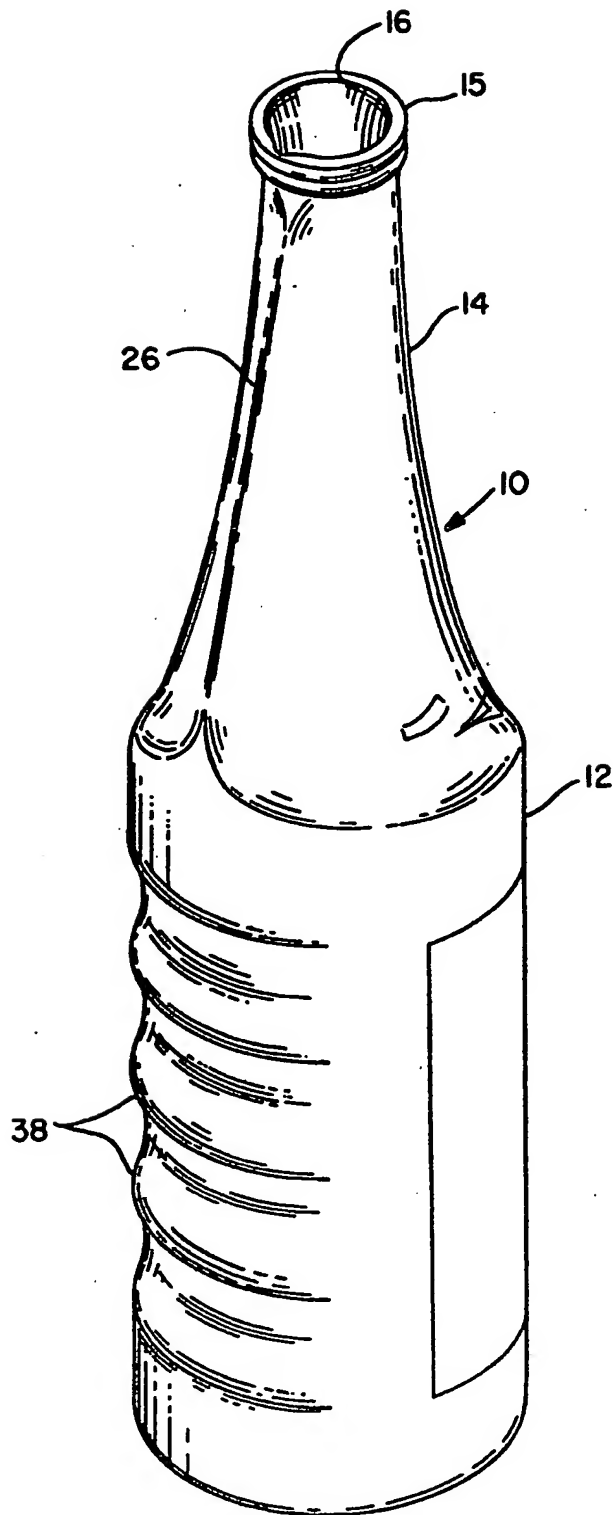
21. The bottle of claim 20 wherein the concave shape in said base means is sufficiently deep so that said bottle will stand upright even when a cap is entrapped within said well.

22. The bottle of claim 18 in which said lip is oval on the outside and said passageway is separated from said opening by a wall.

23. The bottle of claim 18 in which said passageway is separated from said opening by a wall.

24. The bottle of claim 18 in which said lip is circular on the outside and said passageway is an inverted V-shaped portion of said opening.

FIG. 1



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FIG. 2

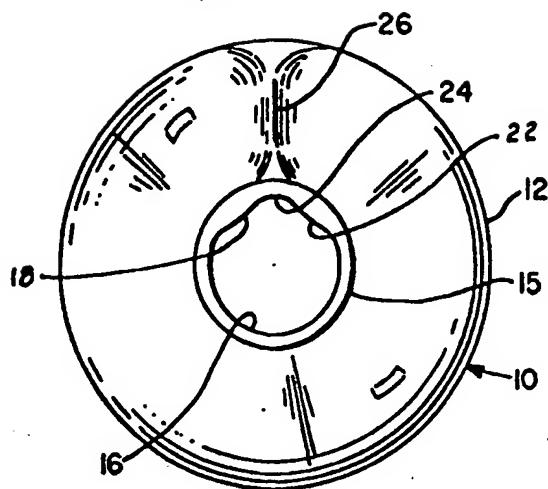


FIG. 3

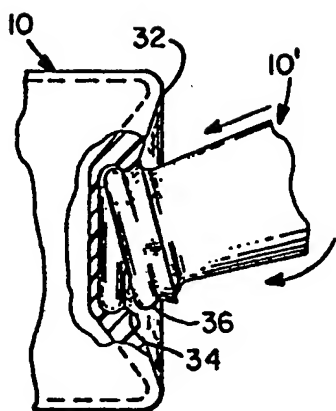
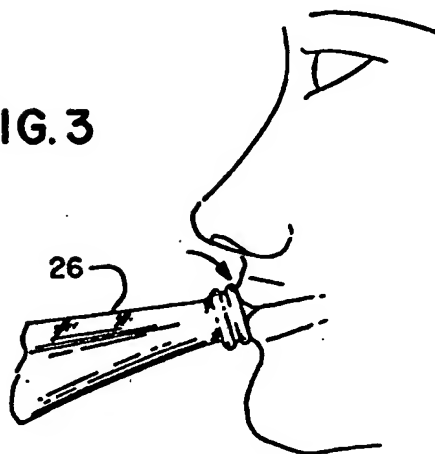


FIG. 5a

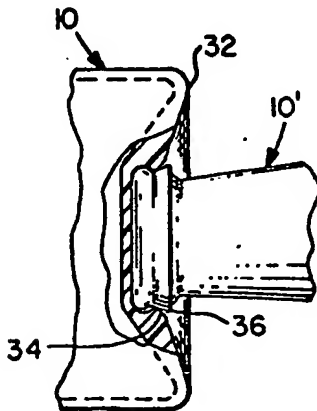


FIG. 5b

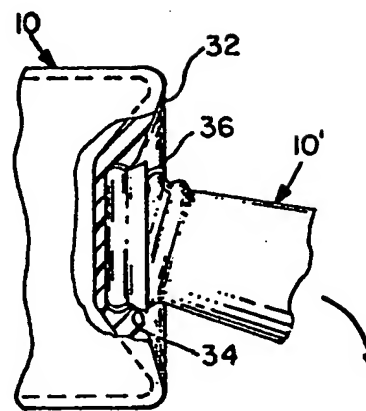


FIG. 5c

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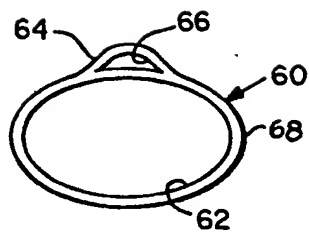
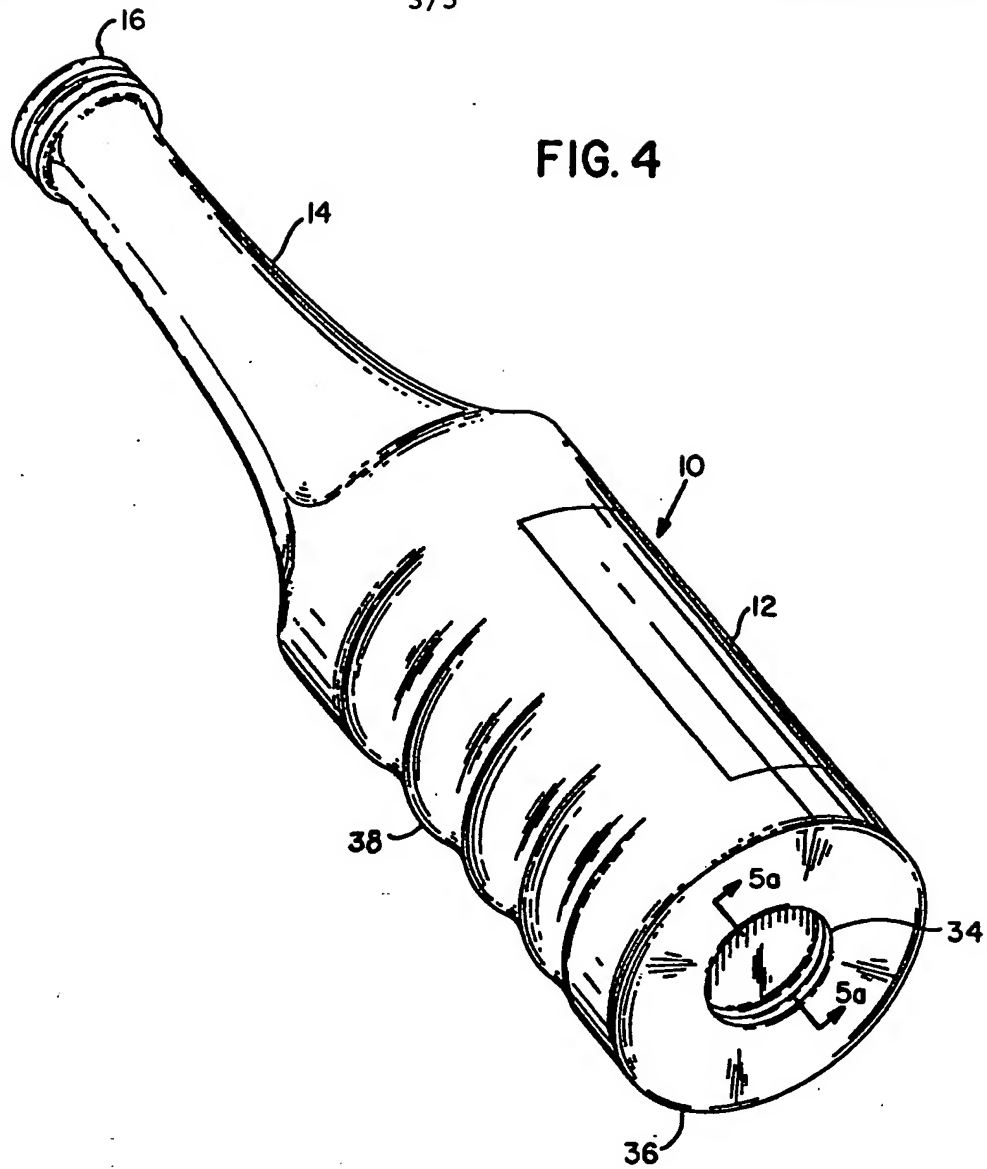


FIG. 7

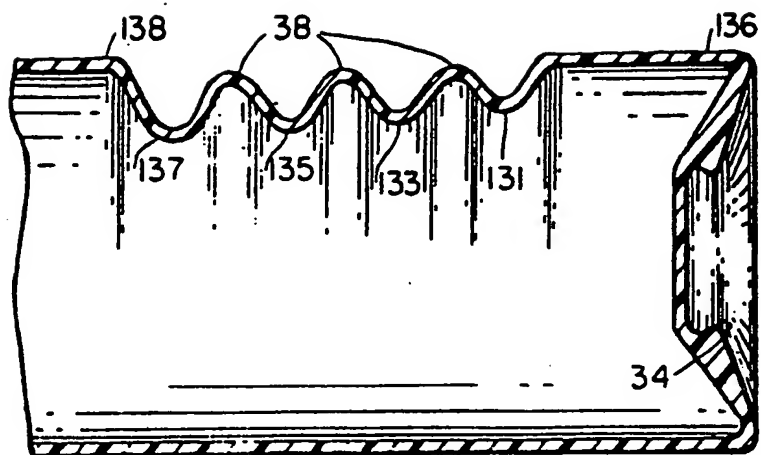
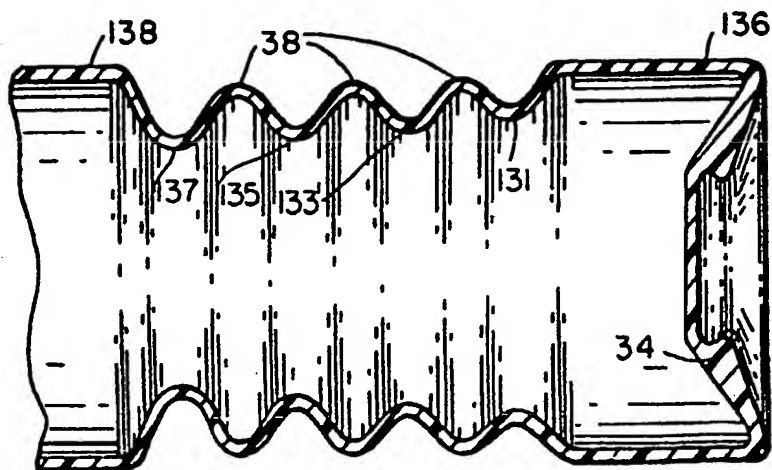
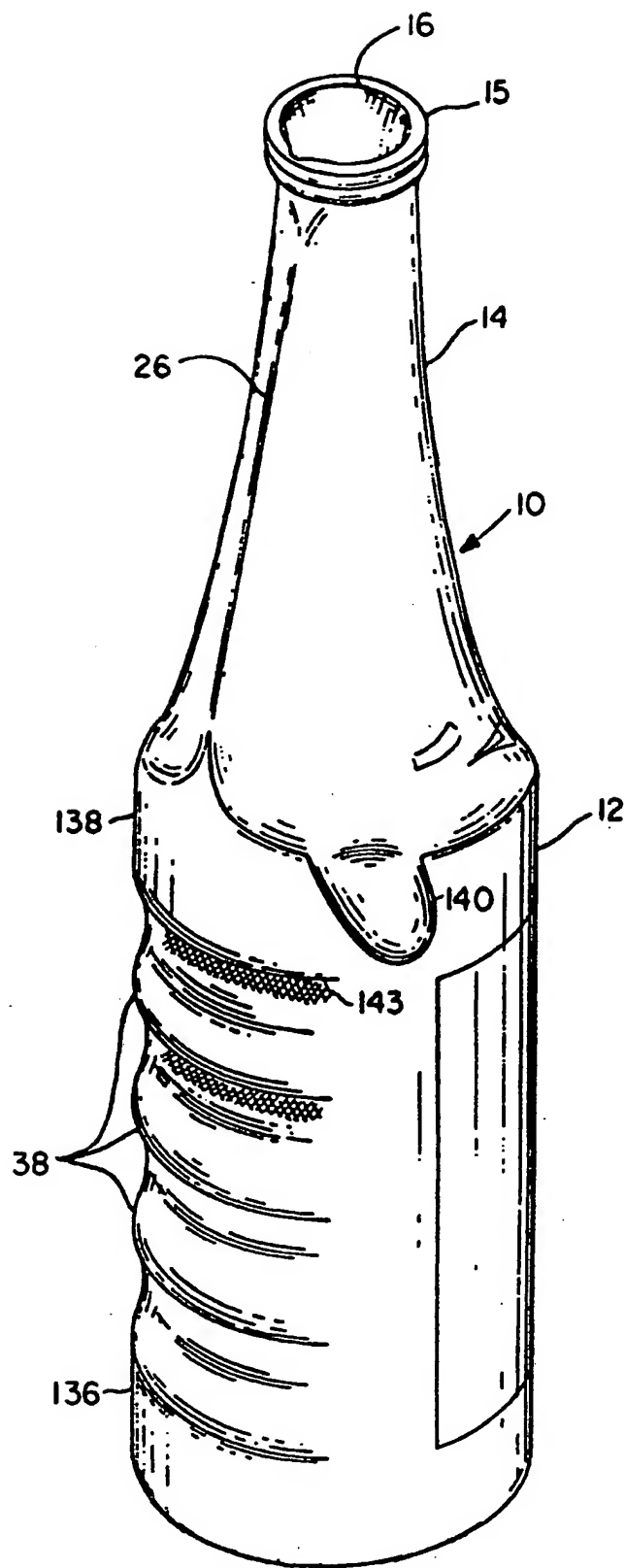


FIG. 8



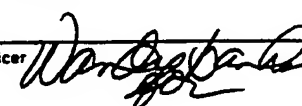
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FIG. 9



INTERNATIONAL SEARCH REPORT

International Application No. PCT/US92/00390

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) *		
According to International Patent Classification (IPC) or to both National Classification and IPC		
IPC (5): B65D 1/02		
U.S. Cl. 215/100A		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
U.S.	215/1R, 31,100R, 100A	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category *	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
Y	U.S., A, 600,064 CHAPLEN et al 01 MARCH 1898 See fig. 2 and pg. 1, lines 48-54	1-5
Y	U.S., A, 4,838,464 BRIGGS 13 JUNE 1989 See fig. 4 and col. 3, lines 34-46	1-5
Y	U.S., A, 281,703 GOSH et al 14 SEPTEMBER 1988 See fig. 1 and pg. 3, lines 8-13	2,19,20
Y	U.S., A, 4,761,379 WILLIAMS et al 02 AUGUST 1988 SEE fig. 5 and col. 4, lines 16 and 17	3,4,19-21
Y X	U.S., A, 4,804,097 ALBERGINI et al 14 FEBRUARY 1989 See fig. 1 and col. 2, lines 52-59	5 7-10
Y	U.S., A, 7,659,507 JONKER 17 NOVEMBER 1953 See fig. 2 and col. 2 lines 33-43	5,23,24 18
Y	GB, A, 429,214 TWEEDALE 27 MAY 1935 See fig. 13 and pg. 3, lines 73-34	6
(cont. on supp. sheet)		
<p>* Special categories of cited documents: ¹⁰</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p>		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search		Date of Mailing of the International Search Report
26 MARCH 1992		27 MAY 1992
International Searching Authority		Signature of Authorized Officer
ISA/US		STEPHEN GARBE 

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

Y	U.S., A, Des. 91,653	GUYER	06 MARCH 1934	11-17
A	U.S., A, 1,773,291	WEAVER	19 AUGUST 1930	

V. ☐ OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE ¹

This international search report has not been established in respect of certain claims under Article 17(2) (a) for the following reasons:

1. ☐ Claim numbers _____, because they relate to subject matter ¹² not required to be searched by this Authority, namely:

2. ☐ Claim numbers _____, because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out ¹³, specifically:

3. ☐ Claim numbers _____, because they are dependent claims not drafted in accordance with the second and third sentences of PCT Rule 8.4(a).

VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING ²

This International Searching Authority found multiple inventions in this international application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.

2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims:

3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:

4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

- ☐ The additional search fees were accompanied by applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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